



Great Lakes Fishery Commission

ESTABLISHED BY CONVENTION BETWEEN CANADA AND THE UNITED STATES TO IMPROVE AND PERPETUATE FISHERY RESOURCES

175163

2 June 2002

Docket Management Facility
(USCG-2001-10486) - 12
U.S. Department of Transportation,
Room PL-401
400 Seventh Street SW.,
Washington, DC 20590-0001
FAX: 202-493-2251

DEPT. OF TRANSPORTATION
02 JUN -3 AM 9:26

Dear Sir / Madam:

On behalf of the Great Lakes Fishery Commission, I offer the following comments in reply to "Standards for Living Organisms in Ships' Ballast Water Discharged in U.S. Waters" (USCG-2001-10486).

To preserve our fishery resources, the ultimate goal must be zero introductions and the rate of introductions must be reduced constantly and quickly until the goal is reached. The Commission recommended in 2000 that the Governments of the United States and Canada develop and implement a coordinated, adaptive 10-year strategy to end ship-mediated invasions. Incorporation of new science is critical for the success of such a strategy and a process must be established to revise goal and standards as new information becomes available (from page 9635 - "... the final standards would be derived from a process that incorporates the expertise of the scientific community").

Question 1 (select a goal) - Consistent with Congressional intent "to eliminate ballast water discharge as a source of harmful NIS" (page 9634), we agree that the ultimate goal of ballast management is zero new introductions - where introduction is defined as establishment of a self-sustaining population. Therefore, in response to Question 1, "treat-for-living-organisms-at-least-to-the-same-extent-as-drinking-water" (Goal 2) appears most likely to result in zero new introductions.

Question 2 (select a standard) -- The four candidate standards in this Advance Notice of Proposed Rulemaking seem to be of two varieties, one based on organism size and the other on percent removal (or kill or inactivation). At this stage of ballast management, it would be counter-productive to adopt a standard that could preclude development of effective technology, for example a size-based standard that encourages filtration but not disinfection. Likewise, a standard should not discourage sequential use of two or more

technologies. A suite of standards may be required to encourage the development of all promising technologies, with maximum suppression in the interim, until it is clear which will best deliver the goal of zero introductions.

To progress toward zero introductions, standard(s) should be selected to elicit the largest possible advance – at this time, with respect to ballast water exchange. For the organism-size standard, “discharge-no-organisms-larger-than-50-microns” (Standard 4) is preferred rather than “remove-kill-or-inactivate-all-organisms-larger-than 100-microns” (Standard 2). We are concerned, however, that certain organisms, including fish viruses such as those responsible for Viral Hemorrhagic Septicemia and Infectious Salmon Anemia, would not be blocked by the 50 micron standard.

With respect to percent removal, “remove-99%” (Standard 3) is preferred, rather than “remove-kill-or-inactivate-95%” (Standard 1). We have concerns, however, with Standard 3. As written, Standard 3 appears to exclude animals that are not normally suspended in the water or that are independent of currents and water movements. We are also concerned that even 1% of highest reported natural concentrations can be sufficient to establish new colonies, and thus strongly recommend that “safe” numbers of propagules be substituted, where available, for the various taxa. (Dr. David Lodge (Notre Dame U.) is leading a major study on the number of propagules required to establish viable colonies of the various taxa.)

Question 3 (effectiveness and practicality of current technologies) -- The Commission is confident in the ability of a motivated shipping industry to meet these standards. Overall, society and industry are better off when actions are taken to protect the environment.

Question 4 (cost-benefit or cost-effectiveness) -- Like extinctions, introductions are permanent; costs of introductions cannot be amortized over 20 years. Standards that move us most quickly to the goal of zero introductions, with maximum suppression in the interim, are most likely to secure the desired full benefits of biological security. Every delay jeopardizes expected benefits and increases risk. In fact, the Great Lakes sport and commercial fishing industry and other water users are already suffering from ballast invaders and costs will only continue to increase if, in choosing standards, undue weight is accorded criteria other than effectiveness.

Moreover, we caution that traditional cost-benefit analyses applied to problems like introductions often do a poor job of capturing the full benefits of effective management action – or costs of ineffective management -- which are typically externalized to the public. (Bulte, E., and G.C. Van Kooten. Economic science, endangered species, and biodiversity loss. *Conservation Biology*, pages 113-119, Volume 14, No. 1, February 2000).

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Question 5 (small businesses owning vessels) -- Standards more stringent than ballast water exchange, steadily updated to move us quickly toward zero introductions, will benefit small businesses associated with commercial and recreational fishing -- many of which own vessels.

Question 6 (environmental impacts) -- Because of the threat of new introductions, the Great Lakes Ecosystem has never been in more serious jeopardy. We urge the U.S. Coast Guard to select a goal, standard(s), and a strategy that gets us quickly to the ultimate goal of zero introductions.

In summary, the ultimate goal must be zero introductions and the rate of introductions must be reduced constantly and quickly until the goal is reached. A process must be established to revise goal and standards as new science becomes available. Standard(s) should not be written so as to preclude development of potentially effective technology, nor sequential use of two or more technologies; each new standard should be selected to elicit the largest possible advance in progressing toward zero introductions. We strongly recommend that standard(s) be based upon "safe" numbers of propagules, where available, for the various taxa. We reiterate the Commission's recommendation (2000) that the Governments of the United States and Canada, now in the second decade of ballast management, develop and implement a coordinated, adaptive 10-year strategy to end ship-mediated invasions.

Sincerely,

A handwritten signature in black ink that reads "Marg Dochoda". The script is cursive and fluid, with the first name "Marg" and last name "Dochoda" clearly legible.

Margaret Dochoda
Fishery Biologist